



CONSERVATION ENHANCEMENT ACTIVITY

E512F

CONSERVATION STEWARDSHIP PROGRAM

Establishing native grass or legumes in forage base to improve the plant community

Conservation Practice 512: Forage and Biomass Planting

APPLICABLE LAND USE: Pasture, Associated Ag Land

RESOURCE CONCERN: Plants, Animals

ENHANCEMENT LIFE SPAN: 5 years

Enhancement Description

Establishing adapted and/or compatible species, varieties, or cultivars of perennial, herbaceous species that can provide the structure and composition needed to enhance livestock and wildlife habitat, particularly when targeted forage supply and quality, cover, and shelter are not available in other pastures.

Criteria

- Select native, perennial, grass or forbs and legume plant species and their cultivars based on climatic conditions, soil condition, landscape position and resistance to disease and insects, that meet the cover demand for movement by the wildlife species of concern.
- Recommendations for planting rates, methods, depths, and dates from land grant universities (LGU), plant materials program, extension agencies, or agency field trials will be followed.
- Prepare seed bed for planting that does not restrict plant emergence or leave the site vulnerable to erosion.



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- Planting will take place when soil moisture is adequate for germination and establishment.
- Federal, state, or local noxious species will not be planted.
- Plant nutrients and/or soil amendments for establishment purposes will be applied according to a current soil test. Legume seed will be pre-inoculated or inoculated with the proper viable strain of Rhizobia immediately before planting.
- Plants will be selected that help meet livestock forage demand during times that normal farm/ranch forage production is inadequate. When wildlife species are of concern, plant selection will be made and maintained based on the state's approved NRCS habitat evaluation procedure.
- Forage species selected will meet the desired level of nutrition for the kind and class of the livestock to be fed. Forage species planted as mixtures will exhibit similar palatability to minimize selective grazing.



Documentation and Implementation Requirements

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Participant will:

- ☐ Prior to implementation, select a perennial forage species or grassland mixture for establishment. *If livestock are included in the system, forage species selected will meet the desired level of nutrition for the kind and class of the livestock to be fed.* (NRCS will provide technical assistance, as needed.)

Species	Species type (grass, legume, broadleaf)

- ☐ Prior to implementation, select planting technique, seeding rates and timing appropriate for the site and climatic conditions. (NRCS will provide technical assistance, as needed.)

Planting Date	
Planting Technique	
Seeding rates	

- ☐ *If livestock are included in the system, prior to implementation a grazing plan must be developed to keep grazing periods sufficiently short to allow for forages to recover before re-grazing occurs.*
- ☐ During implementation, keep the following documentation:
 - Records and photographs of planting preparation and any materials purchased or materials on hand used for the implementation of the enhancement.
 - Documentation of seed rate basis (Pure Live Seed) and any fertilizer or soil amendments used for the implementation of the enhancement.
- ☐ *If livestock are included in the grazing system, documentation and photographs of turn in/turn out grazing records for each field. If livestock are included in the grazing system, during implementation in areas where animals congregate, establish persistent species than can tolerate close grazing and trampling.*

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- ☐ After implementation, make the forage planting and grazing records available for review by NRCS to verify implementation of the enhancement.

NRCS will:

- ☐ As needed, provide technical assistance to meet the criteria of the enhancement.
- ☐ Prior to implementation, provide and explain NRCS Conservation Practice Standard Forage and Biomass Planting (Code 512) as it relates to implementing this enhancement.
- ☐ *If livestock are included in the system, prior to implementation a grazing plan must be developed to keep grazing periods sufficiently short to allow for forages to recover before re-grazing occurs.*
- ☐ As needed, prior to implementation, NRCS will provide technical assistance:
 - ☐ Planning site preparation and establishment specifications meeting NRCS Conservation Practice Standard Forage and Biomass Planting (512).
 - ☐ Prepare specifications for applying this enhancement for each site using approved specification sheets, job sheets, technical notes, and narrative statements in the conservation plan, or other acceptable documentation.
 - ☐ *If livestock are included in the system, develop a grazing plan to keep grazing periods sufficiently short to allow for forages to recover before re-grazing occurs.*
- ☐ During implementation, evaluate any planned changes to verify they meet the enhancement criteria.
- ☐ After implementation, verify the planned perennial grassland mixture was established to specifications developed for the site.

NRCS Documentation Review:

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United States Department of Agriculture

I have reviewed all required participant documentation and have determined the participant has implemented the enhancement and met all criteria and requirements.

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Participant Name _____

Contract Number _____

Total Amount Applied _____

Fiscal Year Completed _____

NRCS Technical Adequacy Signature

Date



WASHINGTON SUPPLEMENT TO CONSERVATION ENHANCEMENT ACTIVITY

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To meet criteria for Forage and Biomass Planting Enhancements utilize references below.

Forage and Biomass Planting References:

Forage and Biomass Planting (512) Practice Standard and Specification sheets (job sheets) are located in NRCS Field Office Technical Guide Section IV/Washington Conservation Practices/Forage and Biomass Planting (AC) (512) folder.

<https://efotg.sc.egov.usda.gov/#/details>

Forage and biomass (pasture) species, with seeding rates, for **Western Washington** can be found in the Extension Publication **EB1870, Pasture and Hayland Renovation** for Western Washington and Oregon. Also provides guidance on site preparation, seeding and when livestock grazing can resume.

<https://s3.wp.wsu.edu/uploads/sites/2079/2015/06/Pasture-and-Hayland-Renovation-for-Western-Washington-and-Oregon-WSU.pdf>

Ecological Site Descriptions and **Forage Suitability Groups** can be found in the **NRCS Field Office Technical Guide** <https://efotg.sc.egov.usda.gov/#/details> in Section II. For planning unit ecological sites and forage suitability groups see next item.

Soil information, including productivity, **Ecological Sites and Forage Suitability Groups** for planning unit soils can be found by using the **Web Soil Survey**

<https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>

Seedbed Preparation and Seed to Soil Contact, Plant Materials Technical Note 6, can be found in the NRCS Field Office Technical Guide in Section I/References Lists/Technical Notes by Discipline/Plant Materials.

<https://efotg.sc.egov.usda.gov/#/details>



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Appropriate plant species, and seeding rates for **Eastern Washington** dryland plantings can be found in the **Plant Materials Technical Note 1 Seeding Guide** in the NRCS Field Office Technical Guide in Section I/Reference Lists/Technical Notes by Discipline/Plant Materials <https://efotg.sc.egov.usda.gov/#/details>

In depth information on **pasture** species for the **Intermountain West** can be found in **Plant Materials Technical Note 19**, November 2009, Pasture – Species Selection and Grazing Management Guidelines. This document is found in the NRCS Field Office Technical Guide in Section I/References Lists/Technical Notes by Discipline/Plant Materials. <https://efotg.sc.egov.usda.gov/#/details>

In depth information on suitable **range and pasture species** can be found in **Plant Materials Technical Note 2**, March 2011, Grass, Grass-Like, Forb, Legume, and Woody Species for the **Intermountain West**. This document is found in the NRCS Field Office Technical Guide in Section I/References Lists/Technical Notes by Discipline/Plant Materials. <https://efotg.sc.egov.usda.gov/#/details>

Pasture Condition Scoring documents in NRCS Field Office Technical Guide in Section I/Reference Lists/Technical Notes by Discipline/Pasture folder <https://efotg.sc.egov.usda.gov/#/details>

Wildlife References and WHEG:

Washington State's Wildlife Habitat Evaluation Guide (WHEG) is **Biology Technical Note 14 Wildlife Habitat Evaluation Guide (WHEG)**. It can be found in the NRCS Field Office Technical Guide in Section I/References Lists/Technical Notes by Discipline/Biology folder. <https://efotg.sc.egov.usda.gov/#/details>

Use the Washington Department of Fish & Wildlife (WDFW) **Priority Habitats and Species (PHS) database** to identify priority wildlife and habitat in your area. <http://wdfw.wa.gov/mapping/phs/>

Consult Biology Technical Note 24, **Plants for Pollinators in the Inland Northwest, Revised 2016** for appropriate plant species east of the Cascade Mts. and for guidance on establishing pollinator habitat. FOTG Section I/References Lists/Technical Notes by Discipline/Biology <https://efotg.sc.egov.usda.gov/#/details>



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For west side environments consult **Plant Materials
Technical Note 13, Plants for Pollinators in Oregon**

https://www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/orpmstn7451.pdf

Prescribed Grazing:

Available for use – **Prescribed Grazing (528) Design Worksheet/s**. This document has several usefull worksheets for developing grazing plans. It can be found in the NRCS Field Office Technical Guide Section IV/Washington Conservation Practices/Prescribed Grazing (528) folder. <https://efotg.sc.egov.usda.gov/#/details>

Pasture Technical Note No. 105. **The Western Oregon and Washington Pasture Calendar**, A Pacific Northwest Extension Publication PNW 699. Oregon State University, University of Idaho, Washington State University.

<https://catalog.extension.oregonstate.edu/sites/catalog/files/project/pdf/pnw699.pdf>